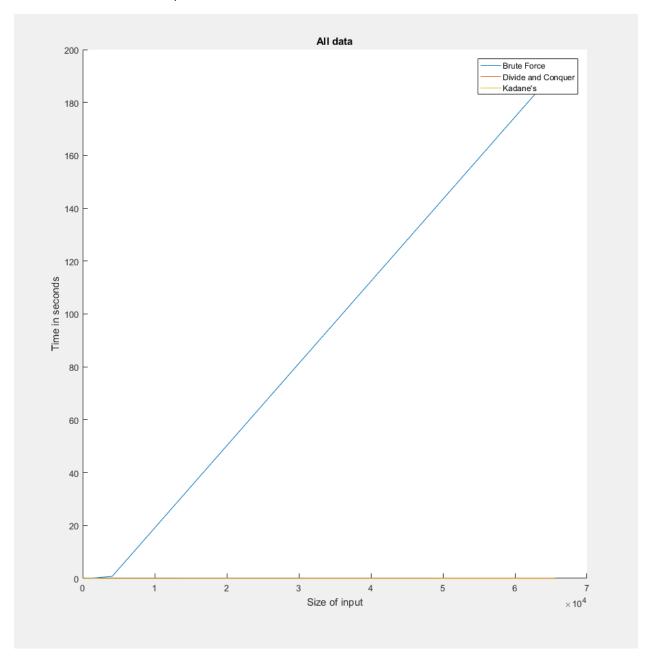
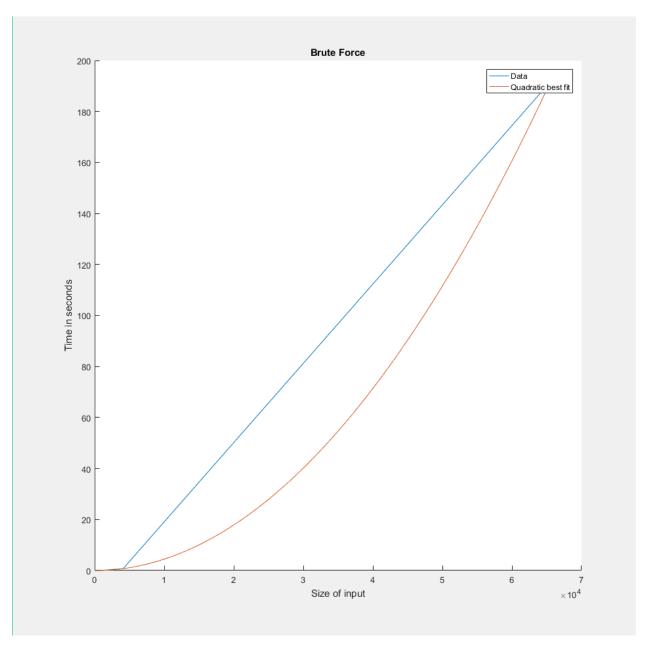
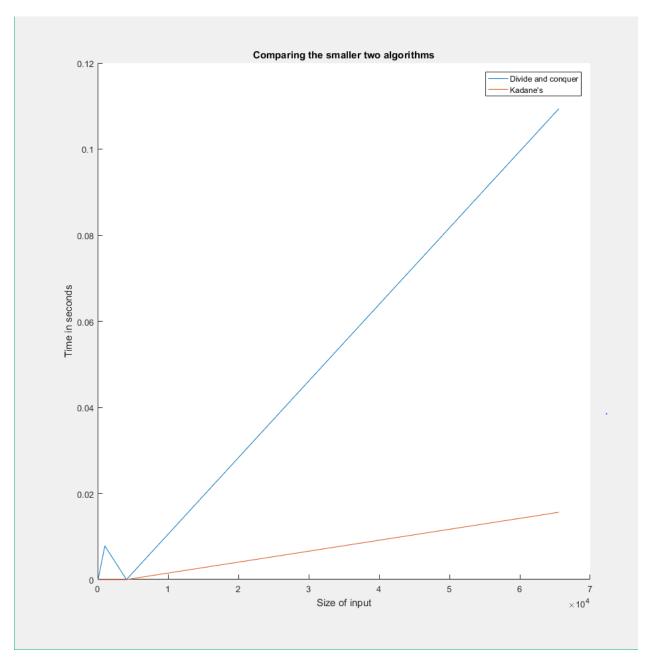
Looking at all three algorithms the difference between all the run times is most clear when comparing all three at once. Here the brute force algorithm grows much more quickly, very clearly dwarfing the other two algorithms. Brute force has a run time of O(n), and here it grows much faster than the other two. This is pictured below.



Due to the lack of data points it looks like this is linear, but it isn't. We can analyze the algorithm and learn observe its O(n), so the quadratic of best fit has been graphed below.



Now of the smaller two the divide and conquer algorithm has a run time of  $O(n \lg(n))$ , and Kadane's algorithm.



As we can see these are orders of magnitude quicker than just the brute force search. However, the Divide is growing faster than Kadane's, as one would expect. Both are still much slower than the brute force method. This makes sense seeing the run times of these algorithms.